

FIG 2

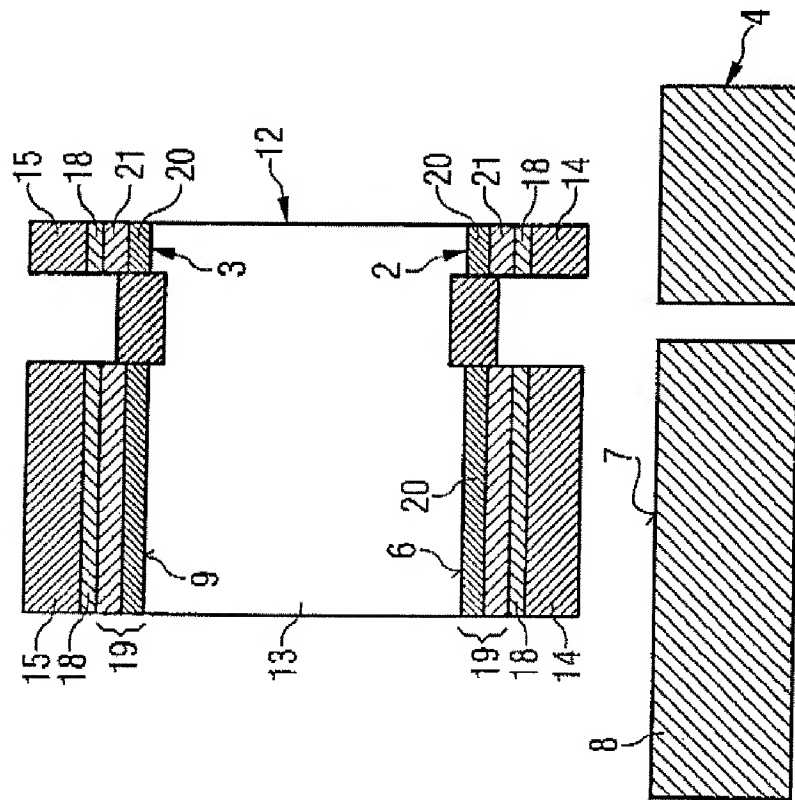


FIG 3

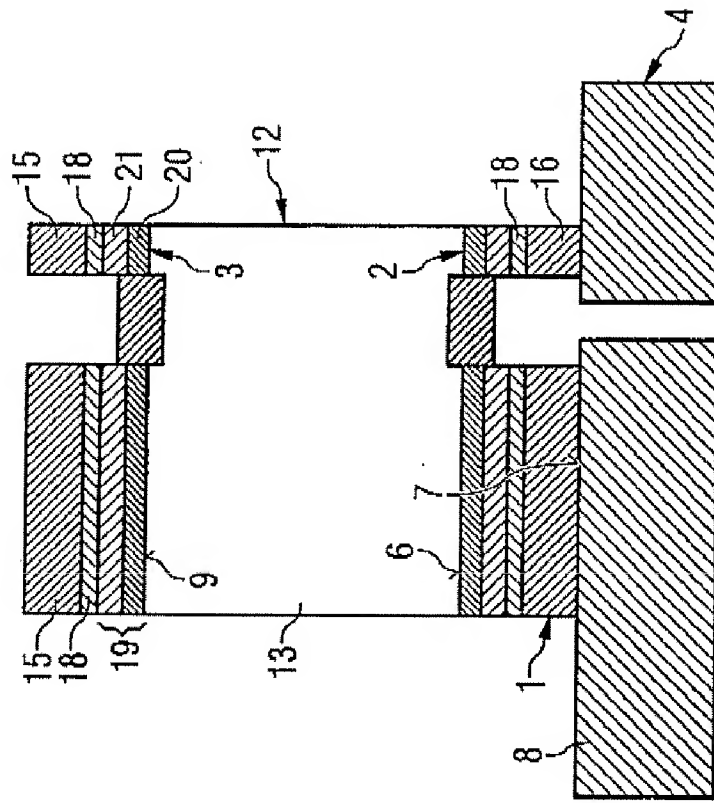


FIG 4

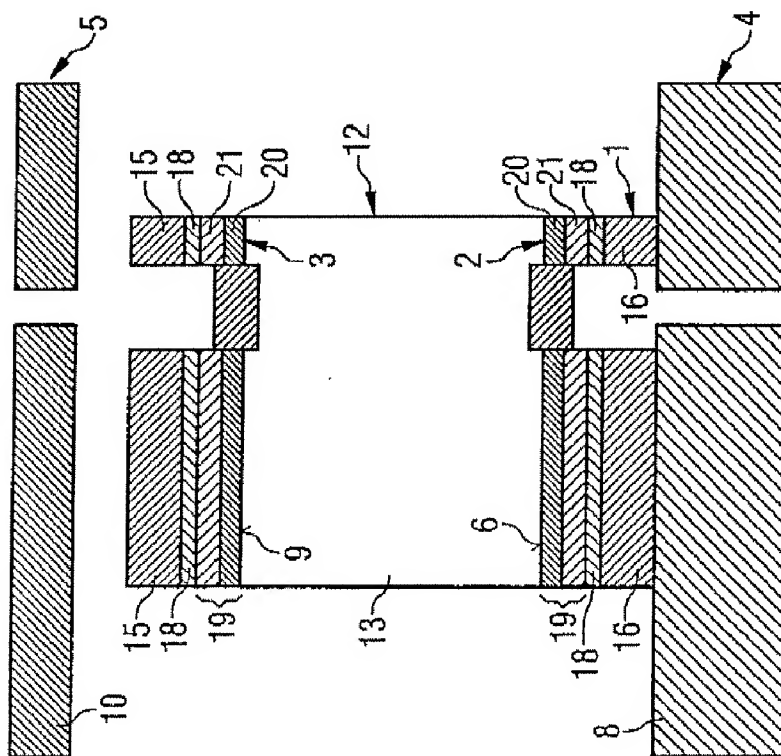


FIG 5

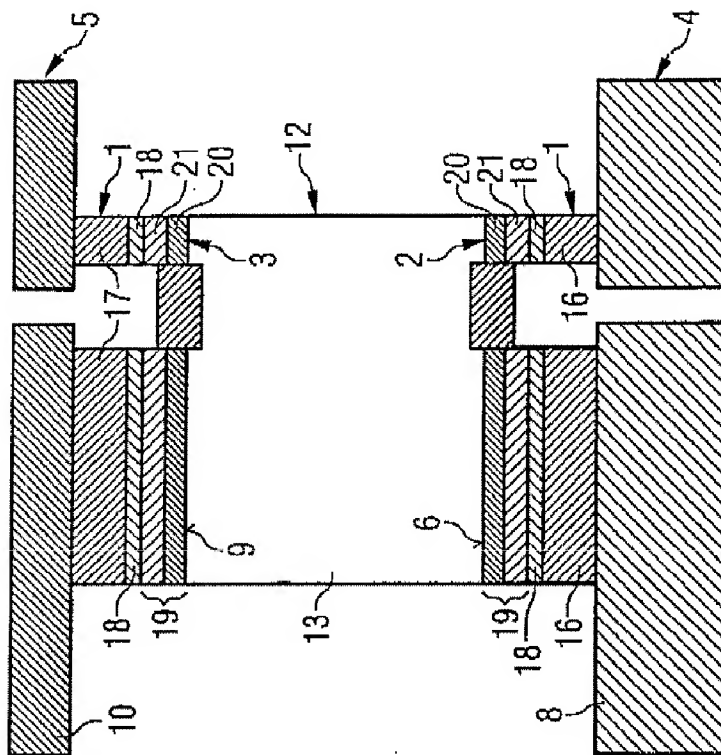


Table 1

Alloy for joining (A or B)	Reaction partners and buffer (X)	T _{melt} , before	T _{melt} , after	Intermetallic phases
Ga-yNi (1 < y < 20wt%)	Ag, Cu, Ni	30, 2°C (l)	362°C; 895°C	Ga ₄ Ni; Ni ₂ Ga ₃
Ga-xCu (1 < x < 40wt%)	Ag, Cu, Ni	28, 6°C (l)	254°C; 485°C	Ga ₂ Cu; Ga ₂ Cu ₃
Ga-yAg (1 < y < 40wt%)	Ag, Cu, Ni	26°C (l)	425°C; 611°C	Ag ₂ Ga; Ag ₅ Ga
In-xAg (1 < x < 30wt%)	Ag, Cu, Ni	144°C	660°C; 695°C	Ag ₃ In
Sn-yAg; (1 < y < 50wt%)	Ag oder Cu	221°C	480°C; 724°C	Ag ₃ Sn; Ag ₅ Sn
Au-xSn (10 < x < 30wt%; 15 < x < 42at%) (des : 5 < x < 38wt%; 8 < x < 50at%)	Ag oder Cu	280°C	480°C; 724°C 415°C; 640°C	Ag ₃ Sn; Ag ₅ Sn Cu ₆ Sn ₅ ; Cu ₃ Sn
Au-yGe (7 < y < 20wt%; 20 < y < 40at%) (des : 4 < y < 50wt%; 10 < y < 75at%)	Cu	361°C	614°C; 743°C	Cu ₃ Ge; Cu ₅ Ge